

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Addiese: COMMISSIONER FOR PATENTS P O Box 1450 Alexandra, Virginia 22313-1450 www.wepto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,110	04/25/2006	Wilhelmus Sebastianus Ketelaars	NL 031282	1172
24737 7590 1223/2008 PHILLIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001			EXAMINER	
			BEMBEN, RICHARD M	
BRIARCLIFF MANOR, NY 10510			ART UNIT	PAPER NUMBER
			2622	
			MAIL DATE	DELIVERY MODE
			12/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Application No. Applicant(s) 10/577,110 KETELAARS ET AL. Office Action Summary Examiner Art Unit RICHARD M. BEMBEN -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 25 April 2006. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-11 is/are pending in the application. 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 1-11 is/are rejected. 7) Claim(s) \_\_\_\_\_ is/are objected to. 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10)⊠ The drawing(s) filed on 25 April 2006 is/are: a)⊠ accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received.

1) Notice of References Cited (PTO-892)

Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SZ/UE)
Paper No(s)/Mail Date \_\_\_\_\_\_

Attachment(s)

Interview Summary (PTO-413)
 Paper No(s)/Mail Date.

6) Other:

Notice of Informal Patent Application

Application/Control Number: 10/577,110

Art Unit: 2622

#### DETAILED ACTION

 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by US
   Patent No. 7,133,068 issued to Fisher et al., hereinafter "Fisher".

Regarding claim 1, Fisher discloses a digital camera having a memory and an operational mode (refer to c. 3, I. 14 – c. 4, I. 47 and Figures 1-3) wherein: the camera takes a sequence of still pictures (refer to c. 7, II. 12-27 and Figure 7); a next one of the pictures in the sequence is selected for being stored in the memory based on an amount of overlap regarding a picture content with a previous one of the pictures stored in the memory (refer to c. 7, II. 38-43 and c. 8, II. 12-48); and the camera processes the pictures stored in the memory so as to create a composite picture (refer to c. 7, II. 43-62 and c. 8, I. 3).

Regarding **claim 2**, refer to the rejection of claim 1 and Fisher further discloses a sensor for determining information representative of respective relative coordinates of the camera when taking respective ones of the pictures (refer to c. 6, II. 14-26, Figure 5, "motion sensor 516", c. 7, I. 43 - c. 8, I. 11).

Regarding claim 3, refer to the rejection of claim 2 and Fisher further discloses that the information is used for controlling the creating of the composite picture using a stitching algorithm (refer to c. 7, II. 28-62 and c. 8, II. 49-59).

Application/Control Number: 10/577,110

Art Unit: 2622

Regarding claim 4, refer to the rejection of claim 2 and Fisher further discloses that the information is used to determine the next picture (refer to c. 7, Il. 28-43).

Regarding **claim 5**, refer to the rejection of claim 1 and Fisher further discloses a detector for detecting an area in the composite picture lacking coverage by the pictures stored in the memory (*refer to c. 8*, *II. 33-38*).

Regarding claim 6, Fisher discloses an electronic apparatus with the camera of claim 1 embedded therein (refer to the rejection of claim 1 and c. 5, I. 58 - c. 6, I. 39 and Figure 5).

Claims 7-11 are method claims corresponding to apparatus claims 1-5, respectively. Therefore, claims 7-11 are analyzed and rejected as previously discussed with respect to claims 1-5, respectively. Further, refer to Fisher c. 9, I. 4 - c. 10, I. 9 and Figure 8.

### Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior at are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability hall not be negatived by the manner in which the invention was made.
- Claims 5 and 11 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher in view of US Patent No. 6,009,190 issued to Szeliski et al., hereinafter "Szeliski".

Application/Control Number: 10/577,110

Art Unit: 2622

In the case that the applicant disagrees with the 35 USC § 102 rejections of claims 5 and 11 above:

Regarding claim 5, Fisher discloses the digital camera required by claim 1 (refer to the rejection of claim 1). Fisher further discloses a detector that alerts a user if the overlap amount is insufficient (refer to c. 8, II. 33-38). However, Fisher does not explicitly disclose a detector for detecting an area in the composite picture lacking coverage by the pictures stored in the memory.

Szeliski discloses a digital camera comprising a detector for detecting an area in the composite picture lacking coverage by the pictures stored in the memory (refer to c. 20, I. 41 – c. 21, I. 28). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to detect an area in the composite picture lacking coverage (a "gap") as disclosed by Szeliski in the digital camera disclosed by Fisher such that if an error occurs during a scan and adjacent pictures have no overlap region, a panoramic image may still be composed.

Claim 11 is a method claim corresponding to apparatus claim 5. Therefore, claim 11 is analyzed and rejected as previously discussed with respect to claim 5.

#### Conclusion

- The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 6. The following disclose panoramic image capture systems that capture using a sweep technique:

Application/Control Number: 10/577,110 Page 5

Art Unit: 2622

US Pub. No. 2001/0045986 filed by Edwards, refer to Figure 7

US Pub. No. 2004/0189849 filed by Hofer, refer to [0045]-[0057] and Figures 8-

11

7. The following discloses a panoramic image capture system that captures sensors such as accelerometers:

US Patent No. 6,304,284 issued to Dunton et al.

8. The following disclose panoramic image capture systems that perform capture and image stitching:

US Patent No. 6.456.323 issued to Mancuso et al.

US Patent No. 6,466,262 issued to Miyatake et al.

US Patent No. 6,466,701 issued to Ejiri et al.

US Patent No. 7,428,007 issued to Kitaguchi et al.

US Patent No. 5,689,611 issued to Ohta et al.

US Patent No. 5.721.624 issued to Kumashiro et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD M. BEMBEN whose telephone number is (571)272-7634. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David L. Ometz/ Supervisory Patent Examiner, Art Unit 2622

RMB